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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,805	02/20/2004	Shau-Lin F. Chen	3940/3928B (CON)	7184

7590 09/08/2004

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EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/783,805	CHEN ET AL.	
	Examiner	Art Unit	
	Hien Tran	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/20/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. Claims 8 and 15 are objected to because of the following informalities:

In claim 8, line 6 "□C" should be changed to --⁰C--. See claim 15 likewise.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 10-11, (17-19)/1 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 97/00119.

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With respect to claims 1-2, 10-12, (18-19)/17/1, WO 97/00119 discloses a catalytic reactor system comprising:

a catalyst comprising a platinum group metal component dispersed on a refractory support carrier;

a hydrocarbon adsorbent deposited on a refractory carrier (page 6, lines 10-22).

The catalyst is exposed to temperature of 100-530 °C (page 32).

The gas temperature is between 200-400 °C (page 30, line 5).

WO 97/00119 further discloses that the catalyst and adsorbent are disposed in separated layers or same layers deposited on the cell walls of a honeycomb configuration (page 17, lines 1-13; page 19, lines 2-10).

Since the platinum group metal of WO 97/00119 is the same as that of the instant claim, it inherently possesses the same properties, e.g. the same light-off temperature, etc..

With respect to claim 17/1, WO 97/00119 discloses the specific amount of platinum group metal of 1-200 g/ft³ (page 12, lines 10-11, page 14, lines 4-7).

Instant claims 1-2, 10-12, (17-19)/1 structurally read on the apparatus of WO 97/00119.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. The art area applicable to the instant invention is that of catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

9. Claims 3-4, 8-9, 13-15, (17-19)/(3-4) are rejected under 35 U.S.C. § 103 as being unpatentable over WO 97/00119 in view of Urata (5,218,817) and Giarrizzo (3,675,398).

The apparatus of WO 97/00119 is substantially the same as that instantly claimed, but is silent as to whether the catalyst may be placed in the tail pipe or the muffler.

However, Urata and Giarrizzo show the conventionality of positioning the catalyst in the muffler and tail pipe.

It would have been obvious to one having ordinary skill in the art to select an appropriate location for the catalyst, such as at the muffler and tail pipe as taught by Urata and Giarrizzo in the apparatus of WO 97/00119 to achieve the purification attendant therewith and since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

10. Claims 5, (17-19)/5 are rejected under 35 U.S.C. § 103 as being unpatentable over WO 97/00119 in view of Dunne (5,078,979).

The apparatus of WO 97/00119 is substantially the same as that instantly claimed, but is silent as to the specific properties of the adsorbent as claimed.

However, Dunne shows the conventionality of providing an adsorbent having specific properties as claimed.

It would have been obvious to one having ordinary skill in the art to select an appropriate adsorbent, as taught by Dunne in the apparatus of WO 97/00119, if not inherent therein, to achieve the desired benefits of adsorbing HC since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

11. Claim 6 is rejected under 35 U.S.C. § 103 as being unpatentable over WO 97/00119 in view of EP 602,963.

The apparatus of WO 97/00119 is substantially the same as that instantly claimed, but fails to disclose whether an additional, upstream catalyst may be provided.

However, EP 602,963 shows the conventionality of providing an additional, upstream catalyst.

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It would have been obvious to one having ordinary skill in the art to provide an additional, upstream catalyst in the apparatus of WO 97/00119 as taught by EP 602,963 to further purify the exhaust gas thereof.

12. Claim 7 is rejected under 35 U.S.C. § 103 as being unpatentable over either WO 97/00119 in view of Dunne (5,078,979) as applied to claim 5 above and further in view of EP 602,963.

The same comments with respect to EP 602,963 apply.

13. Claim 20/(17/1) are rejected under 35 U.S.C. § 103 as being unpatentable WO 97/00119 as applied to claims 1-2 above and further in view of EP 747,581.

WO 97/00119 is silent as to the specific light-off temperature of the catalyst.

However, the catalyst of WO 97/00119 is the same as that of the instant claim and therefore must have the same properties, i.e. the same light-off temperature.

In any event, EP 747,581 discloses provision of a catalyst having light-off temperature at 92 °C.

It would have been obvious to one having ordinary skill in the art to substitute the catalyst of EP 747,581 for the catalyst of WO 97/00119, if not inherent therein, for the known and expected results of obtaining result in exhaust gas purification in the absence of unexpected results, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

14. Claim 20/(17/3-4) are rejected under 35 U.S.C. § 103 as being unpatentable WO 97/00119 in view of Urata (5,218,817) and Giarrizzo (3,675,398) as applied to claims 3-4 above and further in view of EP 747,581.

The same comments with respect to EP '581 apply.

15. Claim 20/(17/5) are rejected under 35 U.S.C. § 103 as being unpatentable over WO 97/00119 in view of Dunne (5,078,979) as applied to claim 5 above and further in view of over EP 747,581.


The same comments with respect to EP '581 apply.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HT
September 3, 2004

Hien Tran
Primary Examiner
Art Unit 1764